

**REMARKS**

Claims 3 and 4 have been converted from dependent form into independent form. This change in form does not narrow or limit the scope of the claims. The independent claim which claims 3 and 4 were formerly dependent upon has not been cancelled. Therefore, the full scope of the doctrine of equivalents should apply to claims 3 and 4 as if they were originally presented in independent form when the application was filed.

Regarding section 1 of the office action, claims 10 and 12 have been cancelled above.

Regarding section 3 of the office action, Figs. 5 and 6 were added in the last amendment. It appears that the examiner inadvertently copied a section from the office action mailed 02/24/2005. Attached is another set of the added figures for the examiner's information. The examiner is requested to withdraw his rejection of claims 3-4 under 35 U.S.C. §112, first paragraph.

In regard to section 5 of the office action, the examiner is requested to withdraw the rejection of claim 7 under 35 U.S.C. §112, second paragraph. Where has it "been held" that the recitation that an element "is able to" perform a function is not a positive limitation? The examiner is directed to MPEP §2173.05(g). A function limitation is an attempt to define something by what it does, rather than by what it is. There is nothing inherently wrong with defining some part of an invention in functional terms. A functional limitation **must**

**be evaluated and considered**, just like any other limitation of the claim.

Claims 1 and 6 were rejected under 35 U.S.C. §102(b) as being anticipated by Fu et al. (US 5,748,181). Claims 1-2, 5-6, 8-9, 11, 13, 15 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by White et al. (GB 2,297,840). Claims 1-9, 11, 13, 15 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by Extrance (EP 0210825). Claims 1-9, 11, 13, 15 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by Doggett (EP 0096476). Claims 1-9, 11-13, 15 and 17 were rejected under 35 U.S.C. §102(b) as being anticipated by Hettlage (US 5,243,187). Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over White et al. (GB 2,297,840) or Extrance (EP 0210825) or Doggett (EP 0096476) or Hettlage (US 5,243,187) in view of Son et al. (US 2002/0005820). Claims 14 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over White et al. (GB 2,297,840) or Extrance (EP 0210825) or Doggett (EP 0096476) or Hettlage (US 5,243,187) in view of Yamada (US 6,351,657). The examiner is requested to reconsider these rejections.

Claim 1 has been amended above to clarify applicants' claimed invention. In particular, claim 1 claims that the plurality of areas have respectively different electromagnetic radiation transmission characteristics for onward transmission of different amounts of electromagnetic radiation, respectively. The areas comprise surfaces on the element.

Fu et al. merely discloses holes; not surfaces as claimed in claim 1. Fu et al. does not anticipate claim 1.

White et al. does not disclose or suggest a rotational pattern. Only a pattern for translation is disclosed. White et al. does not anticipate claim 1.

Extance et al. only discloses changing wavelength; not the amount of energy. Extance et al. does not anticipate claim 1.

Doggett only discloses use of diffraction; not reducing the amount of energy. Doggett does not anticipate claim 1.

Hettlage only uses a distance sensor. Hettlage does not anticipate claim 1.

Though dependent claims 2, 5-7, 9, 11 and 13-14 contain their own allowable subject matter, these claims should at least be allowable due to their dependence from allowable claim 1. However, to expedite prosecution at this time, no further comment will be made.

Claim 15 has been amended above to clarify applicants' claimed invention. In particular, claim 15 claims that the plurality of areas have respectively different electromagnetic radiation reflection characteristics for reflecting respective different amounts of electromagnetic radiation from the source to the detector. Nowhere in the cited art are the features of claim 15 disclosed or suggested. Nowhere in Fu et al., White et al., Extance, Doggett, or Hettlage is there a disclosure or suggestion of a plurality of areas have respectively different electromagnetic radiation reflection characteristics for reflecting respective different amounts of electromagnetic radiation from the source to the detector. The examiner is requested to reconsider his rejection of claims 15 and 16.

Claim 17 has been amended above to clarify applicants' claimed invention. In particular, claim 17 claims that the rotatable member comprises a plurality of electromagnetic radiation affecting surfaces having respectively different electromagnetic radiation affecting characteristics for affecting transmission of electromagnetic radiation from the source to the detector into respective different amounts of electromagnetic radiation. Nowhere in the cited art are the features of claim 15 disclosed or suggested. Nowhere in Fu et al., White et al., Extance, Doggett, or Hettlage is there a disclosure or suggestion of a rotatable member comprises a plurality of electromagnetic radiation affecting surfaces having respectively different electromagnetic radiation affecting characteristics for affecting transmission of electromagnetic radiation from the source to the detector into respective different amounts of electromagnetic radiation. The examiner is requested to reconsider his rejection of claim 17.

Claims 18 and 19 have been added to claim the features recited therein and should not require additional search or consideration.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issue remain, the examiner is invited to call applicants' attorney at the telephone number indicated below.

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Respectfully submitted,

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10/24/05

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